

Contents

List of contributing authors — XI

Recep Erdem Ahan, Derin Akman, Ece Avcı,
and Urartu Özgür Şafak Şeker

Chapter 1

Programming cells with synthetic biology — 1

Merve Yavuz, Ahmet Hınçer, Aslı Semerci,
and Urartu Özgür Şafak Şeker

Chapter 2

Biological devices for cellular targeting and decision-making — 31

Melis Karaca, Senem Şen, Fayiti Fuerkaiti,
and Urartu Özgür Şafak Şeker

Chapter 3

Engineering mammalian cell for cancer — 59

Doğuş Akboğa, Aslı Doğruer, Damla Albayrak, Gozeel Binte Shahid,
and Urartu Özgür Şafak Şeker

Chapter 4

Engineering microbial cells for cancer — 87

Nazlıcan Tunç, Mehmet Emin Bakar, Burak Çalışkan, Tolga Tarkan Ölmez,
and Urartu Özgür Şafak Şeker

Chapter 5

New generation cellular engineering for living therapeutics — 119

Index — 171

